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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,447	02/28/2002	Andreas N. Dorsel	10020208-1	6677
7590	06/15/2005			
			EXAMINER	
			SNAY, JEFFREY R	
			ART UNIT	PAPER NUMBER
			1743	
DATE MAILED: 06/15/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/087,447	DORSEL ET AL.
	Examiner	Art Unit
	Jeffrey R. Snay	1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 06 April 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 16, 17 and 20-24 is/are withdrawn from consideration.
- 5) Claim(s) 1-12 and 19 is/are allowed.
- 6) Claim(s) 13-15 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/29/02, 7/30/03</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 1-15 and 19 in the reply filed on 04-06-05 is acknowledged. The traversal is on the ground(s) that no undue burden would be imposed on the Examiner in examining all of the patentably distinct inventions together. This is not found persuasive because the search for each of the distinct inventions presently claimed would be unrelated. The search in class 422, required for group II, would not be required for either Group I or III. Similarly, the search in class 702, required for group III, would not be required for either Group I or II. Applicant's assertion that in the noted response that "the claims of Group I include the elements found in the claims of Groups II and III" is simply false.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:
- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The noted claims require a result which is determined by comparison to a result which would be obtained under some other hypothetical method. However, that hypothetical method is defined only as "under the same conditions except with the

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interrogating light and detected emitted light not passing through the substrate." The hypothetical method is insufficiently defined by the claims to enable one of ordinary skill in the art to make the claimed comparison. Does applicant intend that the hypothetical method involve the interrogating light being blocked, the emitted light being blocked, or that no interrogating or emitted light is generated at all? Each of these circumstances, including positioning the light source at the back side of the array support, would be encompassed by the instant claim language. As such, one of ordinary skill in the art would be unable to clearly determine the meets and bounds of these claims.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Allowable Subject Matter

5. Claims 1-12 and 19 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter: Each of independent claims 1 and 10 require the following features:

- a. providing an addressable and dry array on a transparent substrate,
- b. providing a gas or vacuum over the array
- c. directing an interrogating light to the array from the back side through the substrate,
- d. detecting light emitted from the array also from the back side after passing through the substrate, and

- e. wherein the emitted light is generated at a distance from the front surface of the support which is less than 1/8th of either the incident light wavelength or the emitted light wavelength.

The prior art fails to teach this combination of steps in interrogating an addressable array.

The use of backside interrogation of an addressable array was known. See U.S. Patents 6,627,397 and 5,599,668. However, the prior art fails to specify that the emitted light is generated at a distance from the front surface of the support which is less than 1/8th of either the incident light wavelength or the emitted light wavelength. It is noted that these references relate to analysis by surface plasmon resonance, which utilizes an evanescent wave that penetrates the array from the back side. It is the examiner's understanding that the depth of penetration of an evanescent wave is on the order of 1/2 to 1 wavelength, which would fail to satisfy the presently recited condition.

Applicant is requested to comment if the examiner's characterization of the penetration depth of an evanescent wave is not accurate.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Snay whose telephone number is (571) 272-1264. The examiner can normally be reached on Mon-Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey R. Snay
Primary Examiner
Art Unit 1743

jrs